

REMARKS

The claims previously in the case have been replaced by new claims that are believed to be proper as to form and clearly patentable over the cited references.

Reconsideration is accordingly respectfully requested, for the rejection of the claims as unpatentable over UHL et al. in view of HIGGINS et al., or further in view of BYRD, Jr. et al. or CIANFROCCA.

UHL discloses a method and device for the online processing of mail items to be forwarded. In the employed method, an image of a mail item is taken and stored after which interesting information within that image is determined. The interesting information includes names and addresses of recipients, forwarding instructions, and, in the case of a return notation by a delivery person, a sender address. The information is checked against a name address databank, and if there is no correspondence, it is checked against a forwarding databank.

The name address data bank, also referred to as dictionary, contains all address information up to the individual delivery locations (column 5, lines 52-53). The forwarding data bank contains a complete list of persons associated with a delivery location (column 6, lines 3-5). Moreover, both the dictionary and the forwarding data bank comprise all possible, correct and different spellings of the addresses (column 5, lines 59-61).

When the name of the recipient is found, possible advance instructions are considered during the subsequent step, e.g. sorting and distributing. To enable the sender to update his/her address list, a report comprising the address change can be sent (column 6, lines 53-58).

In UHL, the address data are predetermined, i.e. they are recorded in a forwarding database. For this purpose an address change system 214 determines the target address. "If the mail is to be forwarded", this is thus known by the system in advance, "the target address is the new address of the recipient. For a return, the address of the sender is the target address" (column 5, lines 8-10). In addition, the sender address and the new, as well as the old recipient address, of each return mail are entered into the databank (column 6, lines 53-55). In this case, the databank is thus updated.

In the Office Action, it is admitted that UHL does not teach determining a quality rating of the address data on the basis of predefined criteria, the quality rating indicating how good the address data are.

HIGGINS discloses a method for improving address recognition, especially cursive address recognition, by using adaptive database management. The adaptive database management method comprises the creation of two databases.

A static database 70 stores data based on training (column 5, lines 13-14). Real time data regarding parameters

like address block location, zip code, city, state etc. is collected from mail processing equipment to generate a dynamic database 72 with statistical information (column 5, lines 14-18). An image capture system 76 is used to generate images from the mail pieces and to provide them to an adaptive recognition system 74 (column 5, lines 18-22).

The dynamic database 72 may include probability density functions, correlations statistics, mean, variance, and higher order moments (column 5, lines 38-40). Based on models a decision threshold is determined which determines a confidence value required by the adaptive process in order to assign previously rejected mail pieces based solely on correlation statistics (column 5, lines 42-46).

The idea of HIGGINS is that if one can gather real-time statistics on a mail stream, the gathered data can be exploited to achieve higher recognition rates of address blocks (column 5, lines 9-11).

In the present invention, the idea explored in HIGGINS is incorporated in step 46, as shown in Figure 3 of the present application. For instance, on page 8, lines 6-7 of the present application it is mentioned that a character recognition reliability rating can be determined.

The present invention does not relate to a method and/or device to improve the recognition of postal addresses as in UHL or to improve the recognition rate of mail pieces as in

HIGGINS. In contrast, it relates to an installation and a method for updating an address database with recorded address data based on determination of a quality rating for the address data on the basis of predefined criteria, the quality rating indicating how good the address data are, a comparison of address data with address records stored in the database memory, updating statistical data relating to the address records stored in the database memory, and updating the content of the database memory on the basis of the quality rating, the comparison of the address data with the stored address records, and the statistical data.

New base claim 27 emphasizes the aforementioned difference. A basis for the use of statistical data can be found on page 11 of the originally filed description of the international application. On page 11, lines 5-6 of the description, it is mentioned that statistics for known address records are updated in the same step as the assignment of a status, i.e. in step 56. The statistical data provide an address record history. The invention relates to the insight that such an address record history can be used to determine when and in what way an address database should be updated with recorded address records.

For instance, as is mentioned in the description on page 11, lines 18-21, if an average period between two successive times that an address record was read in one of the sorting centers changes substantially in the course of time, this can be

an indication that the address record has to be amended. UHL does not include statistical data in its updating. HIGGINS does gather real-time statistics, however these statistics refer to statistics regarding the recognition of characters and the like, and not, as is the case in the present invention, to statistical data relating to the address records as claimed in amended claim 27.

Therefore, claim 27 is believed to be new and inventive over UHL and HIGGINS. Independent claims 40, 53 and 54 (former claims 13, 25 and 26) are amended similarly.

In new claims 28 and 41, possible types of statistical data are mentioned. Statistical data may relate to a frequency with which address data occurs per sorting center (page 11, line 11), dates on which address data occurred on an item of post (page 11, lines 14-15), an interval between two successive times that an address data was used on an item of post (page 11, lines 15-16), an average length of time between two successive times that the address data was used on an item of post (page 11, lines 18-19), and sender's address data in relation to the address data (page 11, lines 22-23).

In the Office Action it is admitted that former claims 5-10 and 17-22 (new claims 31-36 and 45-50) are not disclosed by UHL in view of HIGGINS. However, they are believed to be anticipated by UHL in view of HIGGINS in view of BYRD (U.S. Patent 5,832,480). BYRD does not disclose any further elements

of independent claim 27 and/or 40. Since claims 32-37 and 45-50 depend directly or indirectly on claims 27 and 40 respectively, they are believed to be new and inventive over UHL in view of HIGGINS, thus also new and inventive over UHL in view of HIGGINS in view of BYRD.

Furthermore, in the Office Action it is agreed that former claims 11 and 23 (new claims 38 and 51) are not disclosed by UHL in view of HIGGINS. However, they are believed to be anticipated by UHL in view of HIGGINS in view of CIANFROCCA (U.S. Patent 6,088,796). CIANFROCCA does not disclose any further elements of independent claim 27 and/or claim 40. Since new claims 38 and 51 depend directly on claims 27 and 40 respectively, they are believed to be new and inventive over UHL in view of HIGGINS, thus also new and inventive over UHL in view of HIGGINS in view of CIANFROCCA.

In view of the present amendment and the foregoing Remarks, therefore, it is believed that this application has been placed in condition for allowance, and reconsideration and allowance are respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any

overpayment to Deposit Account No. 25-0120 for any additional
fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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